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REMARKS

Applicants affirm, without traverse, the election of the invention of Group I (Claims 1-5). Claims 6-18 have been withdrawn.

Claim 5 has been amended to replace AlO₂ with Al₂O₃ to correct a typographical error.

Claims 1-5 were rejected under 35 U.S.C. §112, second paragraph because the recited amount of impact modifier was not clear as to what it was based upon. Claim 1 has been amended to recite that the level of impact modifier is based on 100 parts by weight of CPVC. The amended claims are now believed to comply with 35 U.S.C. §112 and the Examiner is respectfully requested to remove this rejection.

Claims 1 and 3 were amended to recite "inherent viscosity" in place of intrinsic viscosity to correct an obvious error. The basis for this amendment can be found on page 3, line 7, of the specification as filed.

Claim 1 was also amended to recite the mean particle size of the zeolite and that 90% by weight of the zeolite particles diameter is below the range of from about 0.3 to 3 microns and low amounts of water. The basis for this amendment can be found on page 10, lines 2-5 of the specification as filed, and on page 9, line 25.

Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by Detterman (U.S. 5,912,277). This rejection is respectfully traversed as to amended claim 1.

The reference Detterman is directed to making a medium density CPVC foam. Detterman makes an incidental disclosure that zeolites can be used as co-stabilizers. Detterman does not disclose nor teach the zeolite particle size as is in Applicants' amended claims. Detterman also does not teach the synergistic effect of using a combination of the particular zeolite and the impact modifier to achieve the increased thermal stability results shown in Table 3 of the present application. Amended claim 1 is not anticipated by Detterman and the Examiner is requested to reconsider and remove this rejection.

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Claims 2-4 were rejected under 35 U.S.C. §102(b) as being anticipated by Detterman as evidenced by Eshuis (U.S. 5,635,588). This rejection is respectfully traversed as to the amended claims.

The reference Eshuis is directed to polymerizing glycerol in the presence of an acid zeolite to obtain high levels of cyclic polymers. Eshuis does not disclose the zeolites as recited in Applicants' amended claims.

Detterman as evidenced by Eshuis does not teach one skilled in the art the zeolite recited in Applicants' claims nor the synergistic effect of using the particular zeolite together with the organosiloxane impact modifier to achieve improved heat stability and impact strength. Applicants believe the amended claims are not anticipated by Detterman as evidenced by Eshuis and the Examiner is requested to reconsider.

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Detterman as evidenced by Eshuis in view of Lockledge (U.S. 6,096,820). This rejection is respectfully traversed as to the amended claims.

The reference Lockledge teaches a zeolite used as a stabilizer for PVC and CPVC. Lockledge does not mention impact modifiers. Lockledge in his examples looks at PVC with large amounts of plasticizer (50 parts by wt. per 100 parts of polymer). Such a highly plasticized compound does not need impact modifiers as it is a soft elastic material. Detterman teaches using an impact modifier in his foam composition. One skilled in the art of formulating rigid compounds, as in the present application, would not look to a reference that deals with foam compounds as in Detterman nor to highly plasticized compounds as used in Lockledge. Applicants' objective is to improve thermal stability and impact resistance while maintaining smooth extrusions. It was very unexpected to find that a synergistic effect is obtained when using the particular claimed impact modifier and the particular zeolite. The particle size of the zeolite is critical in that large particles will lessen the impact strength of CPVC as they are the site of impact failure.

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The amended claims are unobvious when considering Detterman as evidenced Eshuis in view of Lockledge.

The Examiner is requested to reconsider and allow the amended claims.

Respectfully submitted,

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